

What is claimed is:

1. An isolated DNA sequence encoding a LERK-6 polypeptide that binds hek/elk.
2. An isolated DNA sequence encoding a LERK-6 polypeptide that binds hek/elk and that is at least 90% identical with the sequence of amino acid residues selected from the group consisting of 1 to 184 of SEQ ID NO:2 and 1 to 104 of SEQ ID NO:8.
3. An isolated DNA sequence ~~according to claim 1~~, comprising the nucleotide sequence selected from the group consisting of 1 to 552 of SEQ ID NO:1 and 2 to 313 of SEQ ID NO:7.
4. A DNA ~~according to claim 1~~; selected from the group consisting of:
 - (a) cDNA sequences selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:7 that code for LERK-6;
 - (b) DNA sequences that hybridize under highly stringent conditions to the cDNA of (a); and which DNA sequences encode LERK-6; and
 - (c) DNA sequences that, due to the degeneracy of the genetic code, encode LERK-6 polypeptides having the amino acid sequence of the polypeptides encoded by the DNA sequences of (a) or (b).
5. An isolated and purified LERK-6 polypeptide that binds hek/elk.
6. An isolated and purified LERK-6 polypeptide that comprises an amino acid sequence that is at least 90% identical to the sequence of amino acid residues selected from the group consisting of 1 to 184 of SEQ ID NO:2 and 1 to 104 of SEQ ID NO:8.
7. A LERK-6 polypeptide according to claim 5, encoded by the nucleotide sequence according to claim 4.
8. An isolated and purified LERK-6 polypeptide that comprises an amino acid sequence that is at least 90% identical to the sequence of amino acid residues selected from the group consisting of 1 to 145 of SEQ ID NO:2 and 1 to 104 of SEQ ID NO:8.
9. An isolated and purified LERK-6 polypeptide that comprises the amino acid residues 1 to 145 of SEQ ID NO:2.
10. An isolated and purified LERK 6 polypeptide that comprises the amino acid residues 1 to 104 of SEQ ID NO:8.
11. A polypeptide according to claim 5 that is encoded by the cDNA insert of vector λ 13MLERK-6 λ gt10 having accession number ATCC 75829.
12. An expression vector comprising a DNA sequence according to claim 1.

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13. An expression vector comprising a DNA sequence according to claim 2.
14. An expression vector comprising a DNA sequence according to claim 3.
15. An expression vector comprising a DNA sequence according to claim 4.
16. A host cell transfected or transformed with the expression vector according to claim 12.
17. A host cell transformed or transfected with the expression vector according to claim 13.
18. A host cell transformed or transfected with the expression vector according to claim 14.
19. A host cell transformed or transfected with the expression vector according to claim 14.
20. A process for producing a LERK-6 polypeptide, comprising culturing a host cell according to claim 16 under conditions promoting expression, and recovering the polypeptide from the culture medium.
21. A process for producing a LERK-6 polypeptide, comprising culturing a host cell according to claim 17 under conditions promoting expression, and recovering the polypeptide from the culture medium.
22. A process for producing a LERK-6 polypeptide, comprising culturing a host cell according to claim 18 under conditions promoting expression, and recovering the polypeptide from the culture medium.
23. A process for producing a LERK-6 polypeptide, comprising culturing a host cell according to claim 19 under conditions promoting expression, and recovering the polypeptide from the culture medium.
24. An isolated and purified antibody that is immunoreactive with a LERK-6 polypeptide.
25. An antibody according to claim 23 that is a monoclonal antibody.
26. A transgenic non-human mammal all of whose germ and somatic cells contain a DNA sequence according to claim 1 introduced into said mammal, or an ancestor of said mammal, at an embryonic stage.
27. A method of separating cells having the hek/elk receptor on the surface thereof from a mixture of cells in suspension, comprising contacting the cells in the mixture with a contacting surface having a LERK-6 polypeptide according to claim 5 thereon, and separating the contacting surface and the suspension.
28. A method for delivering a desired molecule to a cell having hek/elk on its surface, comprising contacting the hek/elk with a fusion protein comprising a LERK-6 polypeptide according to claim 5 and the desired molecule.